

# bridge **computer** manual



## TABLE OF CONTENTS

VOLUME 11. GENERAL

Reference Manuals	November 1986	1-0
VM/CMS Users Guide	August 1986	1-1

2. ALIGNMENT

Traverse & Horizontal Alignment *	August 1986	2-1
Vertical Alignment *	January 1972	2-2
Vertical Alignment Plot *	January 1972	2-2.1
Layout Plot *	April 1985	2-3
Layout Plot (Revisions) *	August 1975	2-3.1
Bridge Deck Geometrics	March 1972	2-4

9. ESTIMATING

Six-Factor Computations	January 1972	9-1
Superstructure Concrete Quantities	May 1980	9-2
Reinforcing Steel	January 1972	9-3

\* Maintained by the Office of Computer Services.

VOLUME 23. STRUCTURAL FRAME

Frame System	February 1975	3-1
Frame System Supplement #5	November 1973	3-1.5
Bent Analysis	April 1986	3-3
Tunnel Arch Analysis	March 1972	3-4

4. STRUCTURAL MEMBERS

Section Properties by Coordinates	February 1973	4-1
Girder Deflections	March 1972	4-2

5. REINFORCED CONCRETE

Column Design By Yield Surface "YIELD"	February 1986	5-3
Concrete Design Program "CONC"	May 1985	5-4

6. PRESTRESSED CONCRETE

Prestressed Girder Analysis	November 1980	6-1
-----------------------------	---------------	-----

7. STRUCTURAL STEEL

Composite Girder Design	December 1972	7-1
Composite Girder Analysis	March 1972	7-2
Composite Girder X-Section Analysis	February 1973	7-3

8. SUBSTRUCTURE & SOIL ANALYSIS

Shaft Pile Analysis	April 1987	8-1
Footing Analysis/Design Program "FOOT"	February 1986	8-2

10. MISCELLANEOUS PROGRAMS

**11. RESEARCH PROGRAMS**

Bridges on Flexible Bents (MUPDI4)	January 1986	11-1
Curved Bridges on Flexible Bents (CURDI4)	January 1986	11-2
Analysis of Continuous Box Girder Bridges (SIMPLA)	October 1979	11-3
Cellular Structures of Arbitrary Plan Geometry (CELL4)	January 1986	11-4
Design Checking of Prestressed Concrete Box Girder Bridges (GIRDER-PC)	October 1979	11-5
Automated Design of Reinforced Concrete Box Girder Bridge (RCBOX)	October 1979	11-6
Automated Design of Prestressed Box Girder Bridges (MSBOX)	October 1979	11-7
Prismatic Folded Plates with Plate and Beam Elements (FINPLA)	October 1979	11-8
Non-Prismatic Folded Plates with Plate Beam Elements (FINPLA2)	October 1979	11-9
Analysis of Curved Open Girder Bridges (CURVBRG)	October 1979	11-10
Bridge Deck Analysis (GENDEK5)	October 1979	11-11
Analyzing a Reinforced Concrete Pipe Culvert (BDRREDPIPE)	October 1979	11-12
Analyzing a Prestressed Concrete Pipe Culvert (BDRPSPIPE)	October 1979	11-13
Analyzing a Reinforced Concrete Arch Culvert (BDRREDARCH)	October 1979	11-14
Nonlinear Geometric, Material and Time Dependent Analysis of Reinforced and Prestressed Concrete Slabs and Panels (NOPARC)	September 1983	11-15
Reinforced Earth Analysis (REA)	September 1983	11-16
Culvert Analysis and Design (CANDE)	September 1983	11-1